

STEM iPad Technology Integrated Lesson Plan

Assignment Rationale

There is a need to prepare future teachers that have confidence and knowledge in the fields of Science, Technology, Engineering, and Mathematics that in turn encourage their own students to excel in these fields as well. Children need to develop and maintain positive dispositions and skills in STEM in order to be prepared for our future society. The goal of this assignment is to promote critical thinking and problem solving skills for pre-service teachers as they prepare STEM-based activities using iPads. These activities will be used as a means to motivate K-6 students as they focus on STEM content and processes of inquiry in an engaging problem-based format. iPads will help provide a strong motivating factor and a means for differentiating instruction. This project will afford an opportunity for both populations of pre-service teachers and K-6 students to collaborate, reflect, and interact in a real-world setting.

Process

You will work with a partner to write a lesson plan, share a hands-on portion of the plan with the class on the assigned date, and revise as needed prior to sharing the activity with K-6 students.

You will be required to:

- Select a grade level and develop a hands-on activity, using STEM content that incorporates the use of iPads. Apps can be
 - content-related (Earth, Space, Life, or Physical Science &/or a math content app)
 - creation apps – allow the user to create a podcast, video, etc.
- Write a lesson plan using the template provided. You will be expected to work on the plan using Google Docs both in and out of class.
- Include Science, Math, and Technology Standards on your plan.
- Prepare a graphic organizer of your choice that can be used during the activity. The organizer should be a place to record the big ideas – what content and/or vocabulary do you want students to walk away with that will help them master the objective(s).
- Bring supplies and share a hands-on portion of the plan with our class on the assigned date. Be sure to practice your activities with your partner prior to sharing them. If you are using a “creation” app you need to complete a sample product using the app.

Complete the reflection/future modifications portion of the lesson plan with your partner after each implementation of your activity. Date and label each entry.

Your lesson plan will be assessed using the provided rubric. This assignment is one of the required assignments that will be posted to Tk20.